

A NEW SPECIES OF *NEADMETE* (NEOGASTROPODA) FROM THE PLIOCENE OF CALIFORNIA

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ABSTRACT: *Neadmete schwartzi*, a new species of gastropod belonging to the family Cancellariidae, is described from the Upper Pliocene Fernando Formation near Newport Bay, Orange County, California.

INTRODUCTION

During February, 1967, earth moving equipment on the east bluff of upper Newport Bay, Orange County, California, uncovered a highly fossiliferous portion of the lower part of the Fernando Formation. This locality remained exposed until August of the same year when further construction destroyed it. Between these months extensive collecting at the exposure by me and my associates yielded an interesting fauna of over 200 species of larger invertebrates characterized by *Nuculana fossa* (Baird, 1863), *Patinopecten healeyi* (Arnold, 1906), *Pecten hemphilli* Dall, 1879, *Glycymeris grewinkii* Dall, 1909, *Exiloida rectirostris hertleini* Benton, 1940, *Neptunea tabulata colmaensis* (Martin, 1914), *Boreotrophon raymondi* (Moody, 1916) and *Mya truncata* Linné, 1758. This assemblage suggests a Late Pliocene age based on a two-fold division of the Pliocene of California (Vedder, 1960).

While studying the material several new species of mollusks were noted. One of these belongs to the genus *Neadmete* Habe, 1961, which was only recently recognized in the west American fauna (Kanakoff and McLean, 1966). This new species is described herein.

References to the Los Angeles County Museum of Natural History, Section of Invertebrate Paleontology are hereafter abbreviated as LACMIP.

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Figure 1. *Neadmete schwartzi*, new species. Holotype, LACMIP 1779. Height 35.6, diam. 16.9 mm.

SYSTEMATIC DESCRIPTION

Family Cancellariidae Gray, 1853

Genus *Neadmete* Habe, 1961*Neadmete schwartzi* new species

Figure 1

Diagnosis: Shell relatively large; whorls 8, evenly convex, weakly tabulate; 16 spiral ribs on body whorl; outer lip reflected.

Description: Shell relatively large for genus, long, slender, fusiform; spire elevated. Whorls 8, moderately inflated, evenly convex, weakly tabulate on early whorls becoming obsolete on penultimate and body whorls. Nucleus simple, smooth, whorls 2. Axial sculpture of approximately 16 low, rounded ribs, becoming obsolete on last four whorls. Spiral sculpture of low, narrow, rounded ribs, 3 on postnuclear whorls and 16 on body whorl; with single smaller rib intercalated between major ribs on the apical whorls and the first nine ribs of the body whorl; interspaces slightly wider than ribs. Sutures moderately impressed. Aperture subelliptical, approximately one half the height of the shell; outer lip smooth, thin, slightly reflected, with 15 internal spiral lines; canal short and shallow. Columella long, straight, with two folds and eight plicae formed by extension of primary spiral ribbing.

Type Material: Holotype, LACMIP 1779. Four paratypes: LACMIP 1780; California Academy of Sciences (CAS), Department of Geology type collection 13203; University of California at Los Angeles (UCLA), Department of Geology type collection 47313; and collection of Jack D. Mount (JDM) 106. Measurements for the type specimens are listed in Table 1.

Type Locality: LACMIP locality 471; 33° 38' 21" N, 117° 53' 02" W; in a 6 foot thick lens of sandy cobble conglomerate which occurs approximately 425 feet stratigraphically above the base of the formation. At the present time it is located under the residence at 2161 Vista Entrada, Newport Beach, California.

Age and Formation: Late Pliocene, Fernando Formation.

Discussion: *Neadmete schwartzi* is nearest to the Recent *N. circumcincta* (Dall, 1873:59) but differs from that species principally in the larger size, more evenly convex, less tabulate whorls, more spiral ribs and in the presence of the reflected outer lip. *N. circumcincta* is recorded from Alaska, with a specimen in the Los Angeles County Museum of Natural History from Hope Island, off the northern end of Vancouver Island, British Columbia. *N. sutherlandi* Kanakoff and McLean, (1966:4) from the Lomita Marl (Pliocene-Pleistocene) of Los Angeles County, California, is the only other fossil species of *Neadmete* and it is readily distinguished from *N. schwartzi* by its larger size, more pronounced tabulation, and smaller number of spiral ribs.

Etymology: This new species is named for Mr. Jack Schwartz, who

collected the holotype, in recognition of his contributions to the mineralogy of California.

TABLE 1.
Measurements (in mm) of the type specimens
of *Neadmete schwartzi*, new species.

Specimen no.	Height	Diameter	Height of Aperture
LACMIP 1779	35.6	16.9	16.8
LACMIP 1780	28.2	14.8	13.3
CAS 13203	35.3	17.9	16.5
UCLA 47313	33.7	17.1	15.7
JDM 106	31.3	15.7	15.1

LITERATURE CITED

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